



# Better public talks...through science!

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# Gauge Lagrangian

$$\mathcal{L}_{\text{Gauge}} = -\frac{1}{4} G_{\mu\nu}^\alpha G_{\mu\nu}^\alpha - \frac{1}{4} F_{\mu\nu} F_{\mu\nu} - \frac{1}{4} (\partial_\mu B_\nu - \partial_\nu B_\mu)^2$$

Don't Forget Higgs

$$\mathcal{L}_H = \underbrace{D_\mu \phi^\dagger D_\mu \phi}_{\text{where}} - \underbrace{\lambda \left( \phi^\dagger \phi - \frac{v^2}{2} \right)^2}$$

where

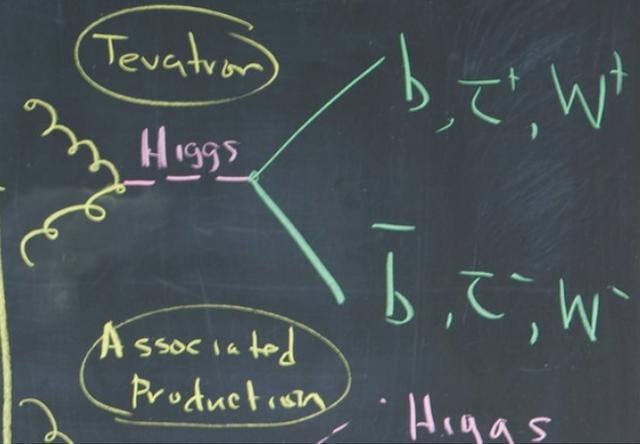
$$D_\mu \phi = \left( \partial_\mu - i g \frac{\tau}{2} - i \frac{1}{2} g' B_\mu \right) \phi$$

and

$$\phi = \begin{pmatrix} \phi^+ \\ \phi^0 \end{pmatrix} \quad \text{Two Component} \quad \text{Options}$$

Integrated Luminosity  
Tevatron  $\sim 10 \text{ fb}^{-1}$

$\checkmark$   
 $\equiv$  LHC  
H  $\rightarrow \gamma\gamma$

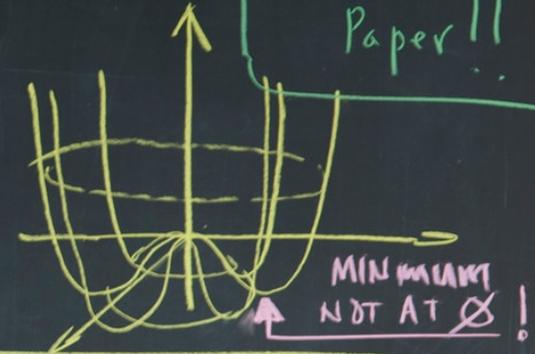


DZero  
CDF

CMS  
ATLAS

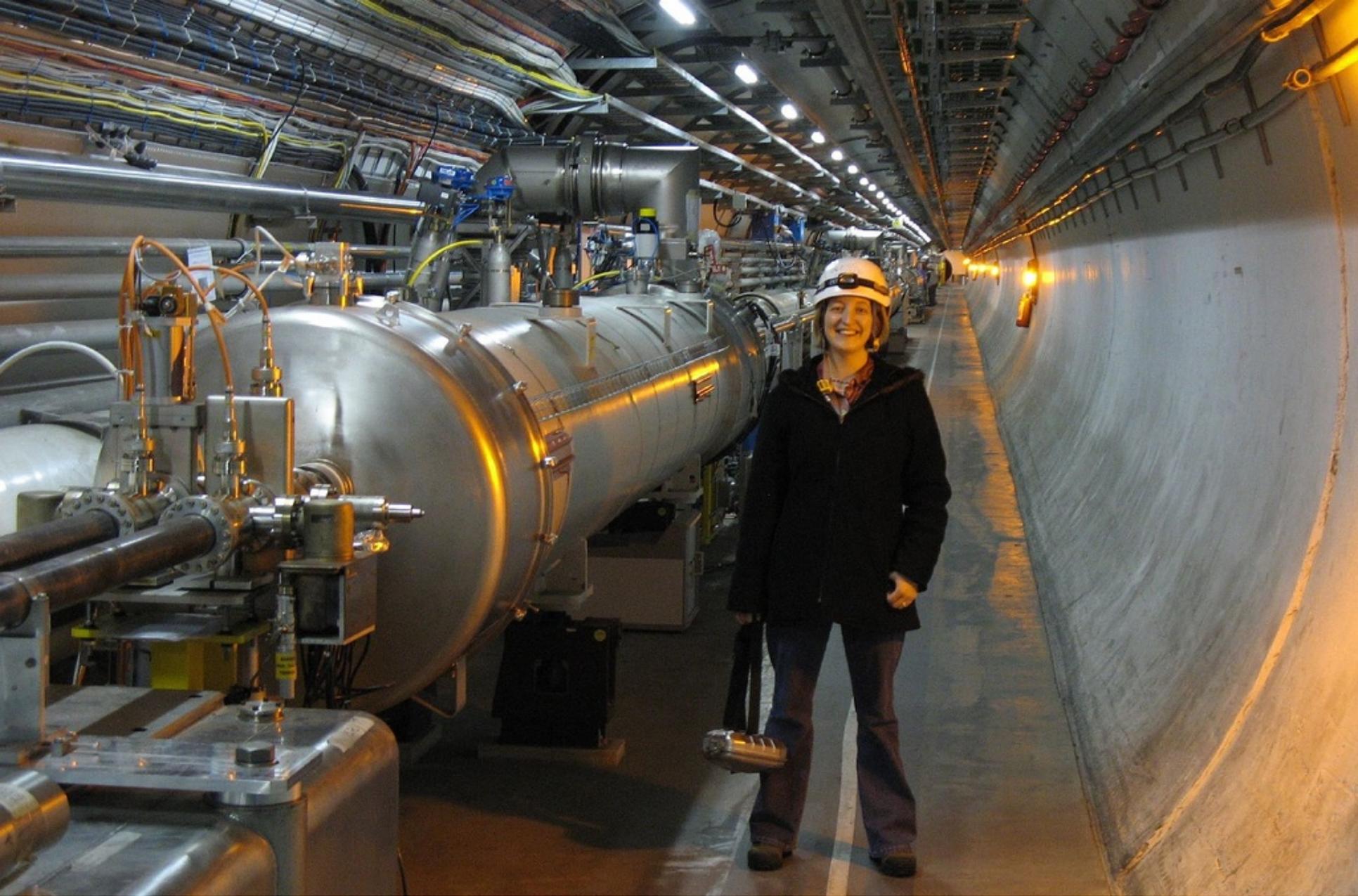
CERN  
3/10-3/17  
Conference  
3/17-3/23

Don't forget  
to Submit  
Paper!!



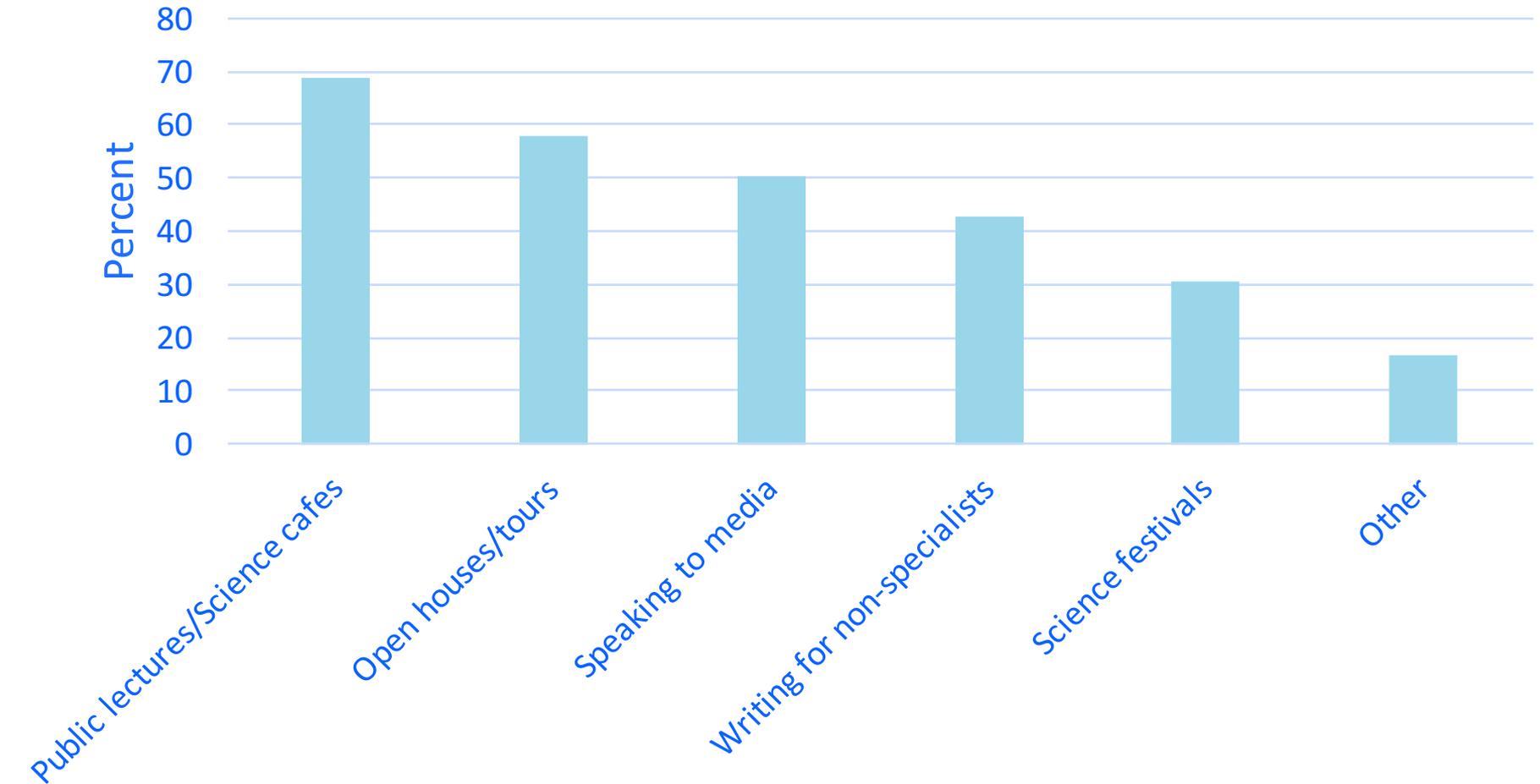




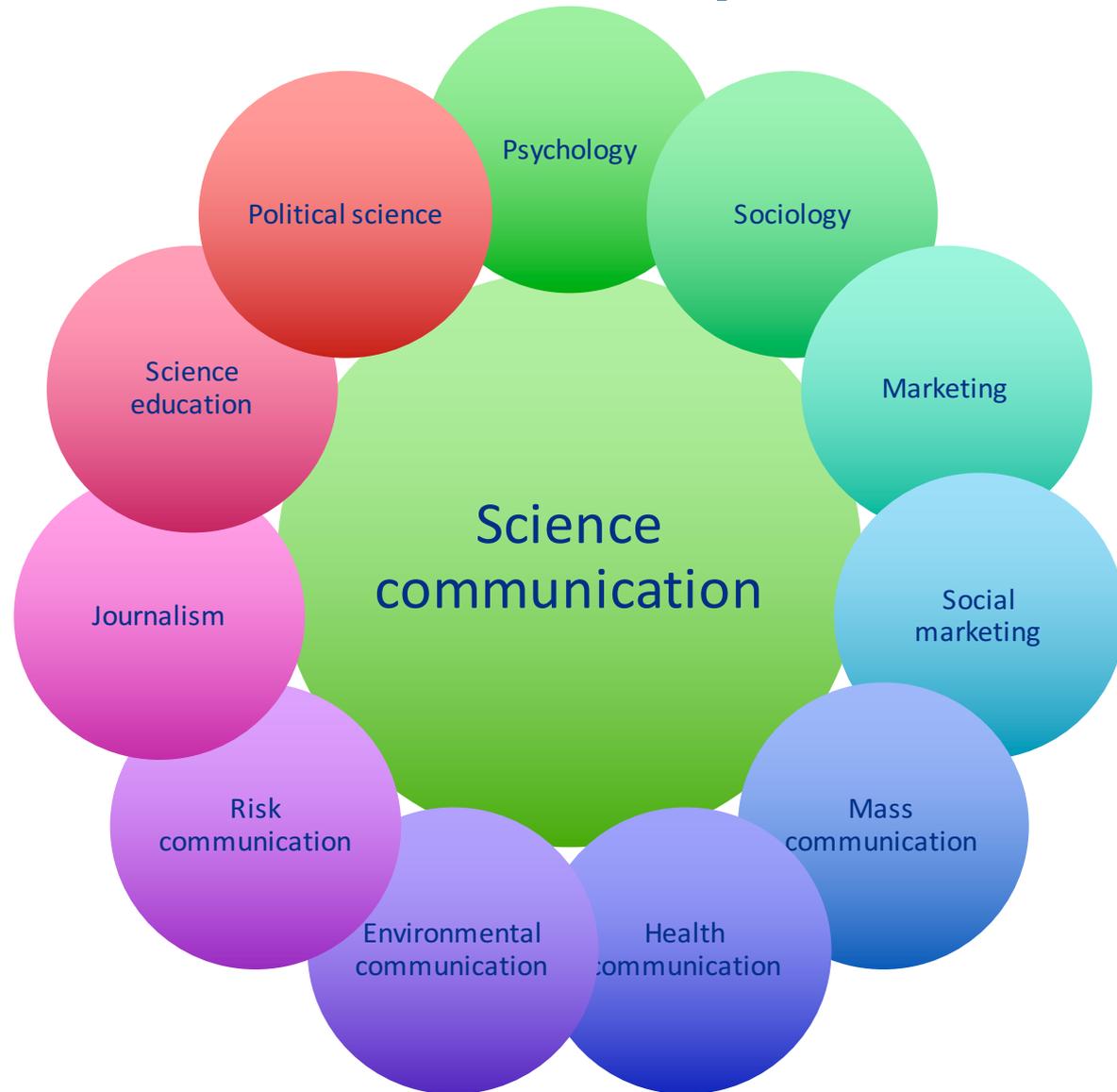


# This talk, informed by...570 of your colleagues

What kinds of outreach activities are you engaged in that reach the general public or journalists?



# And the #scicomm research spectrum



**Be trustworthy**

**Be audience aware**

**Be a visual storyteller**

**Be trustworthy**

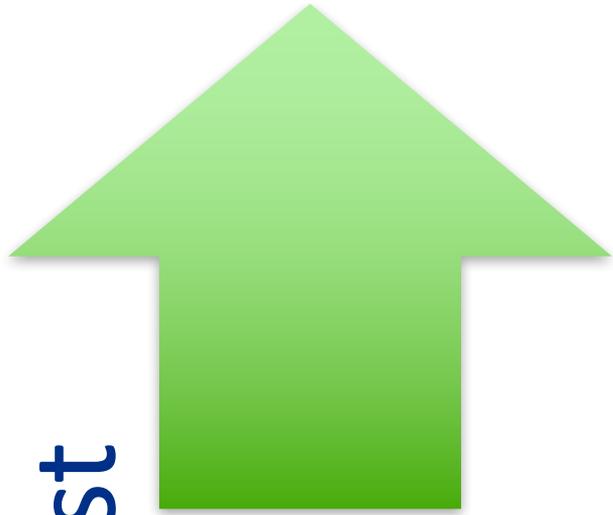
Be audience aware

Be a visual storyteller

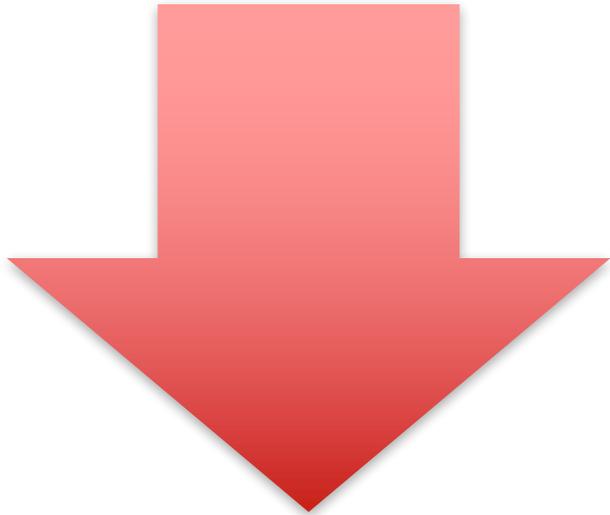
# The Simpsons First-Impression Matrix



Trust



Common interests  
Honesty  
Openness  
Perceived expertise



Persuasion  
Self-interest

Be trustworthy

**Be audience aware**

Be a visual storyteller

# We think people know more than they do

- Only 16% follow news about science and technology “very closely”
- Only 26% could explain what it meant to study something scientifically
- General audience = 6-8<sup>th</sup> grade educational level



# What do they bring to the interaction?

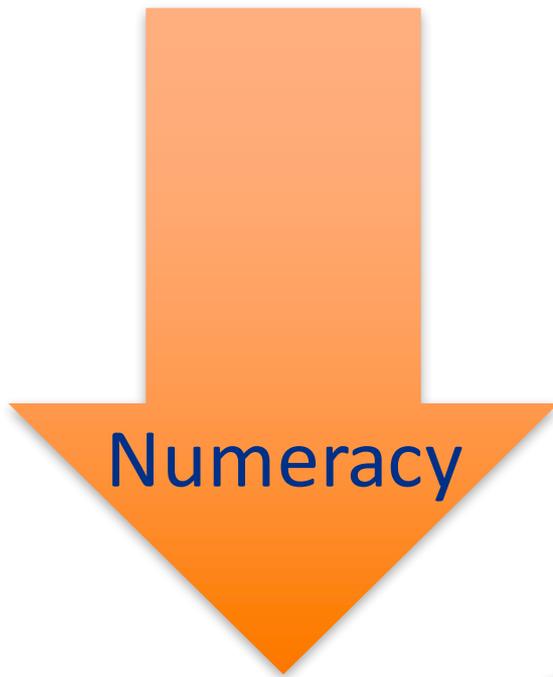
- Are you presenting information in a way that appears to be consistent with their values?
- How may race, gender, ethnicity, political beliefs influence their response to you?
- To your chosen communication methods?



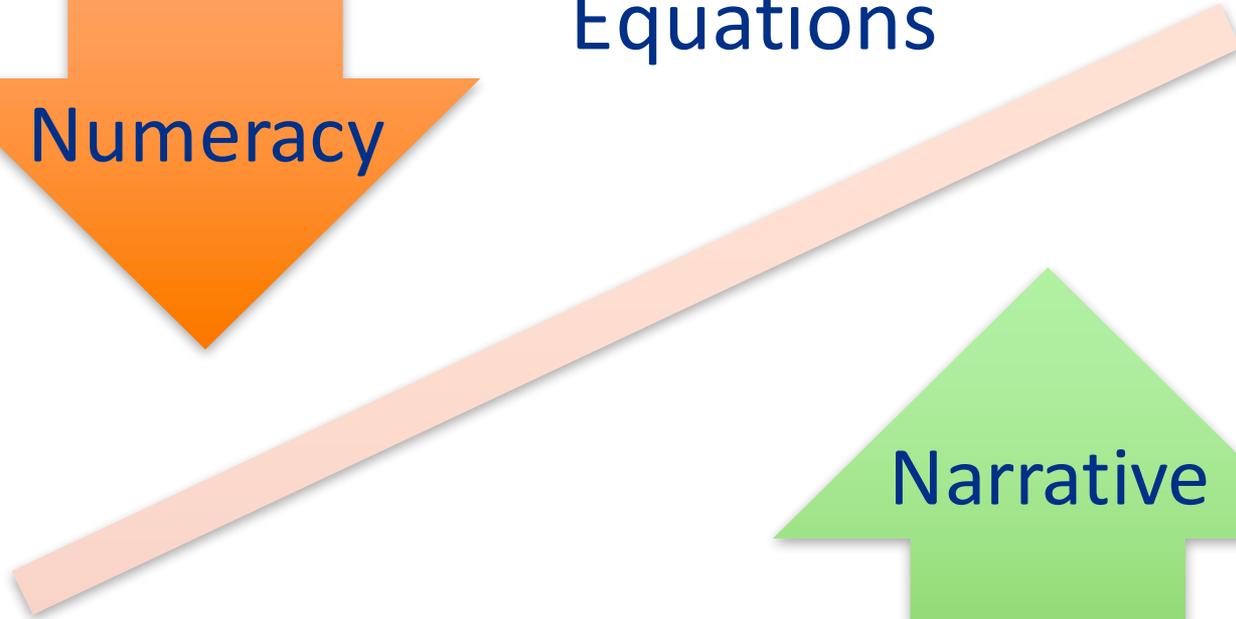
Be trustworthy

Be audience aware

**Be a visual storyteller**



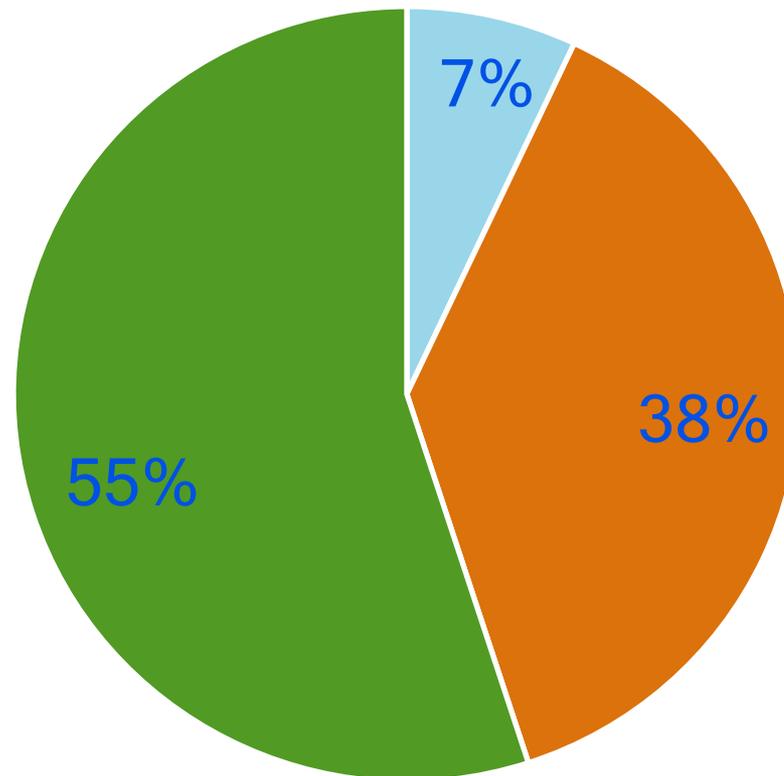
Numbers  
Statistics  
Equations

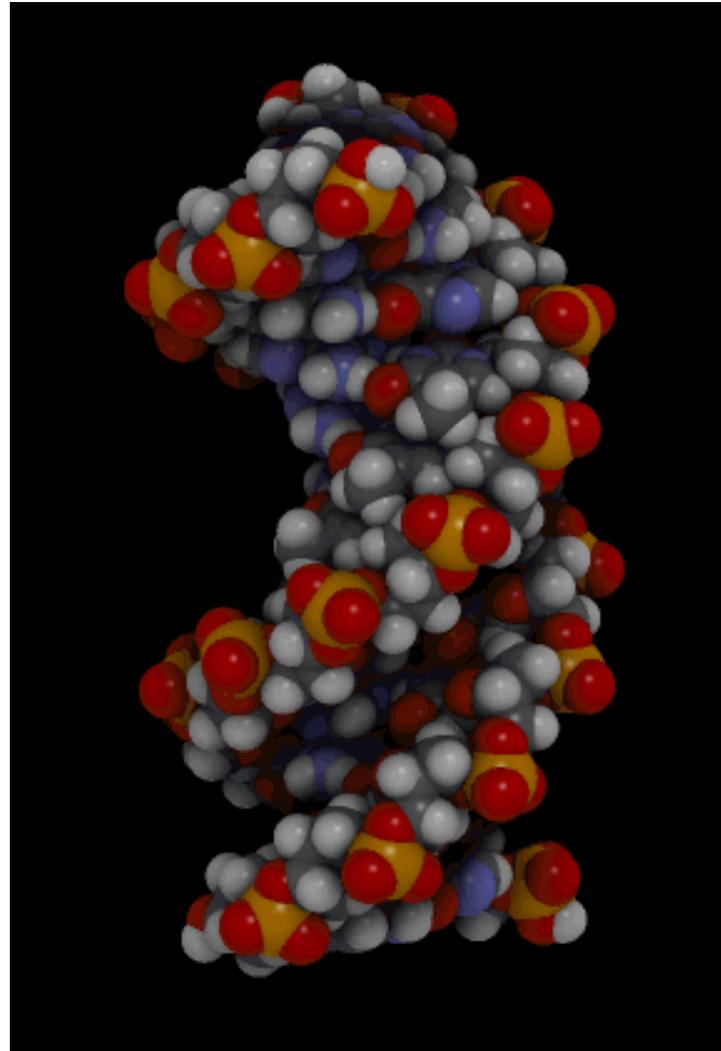


Stories  
Characters

# Mehrabian Communication Model

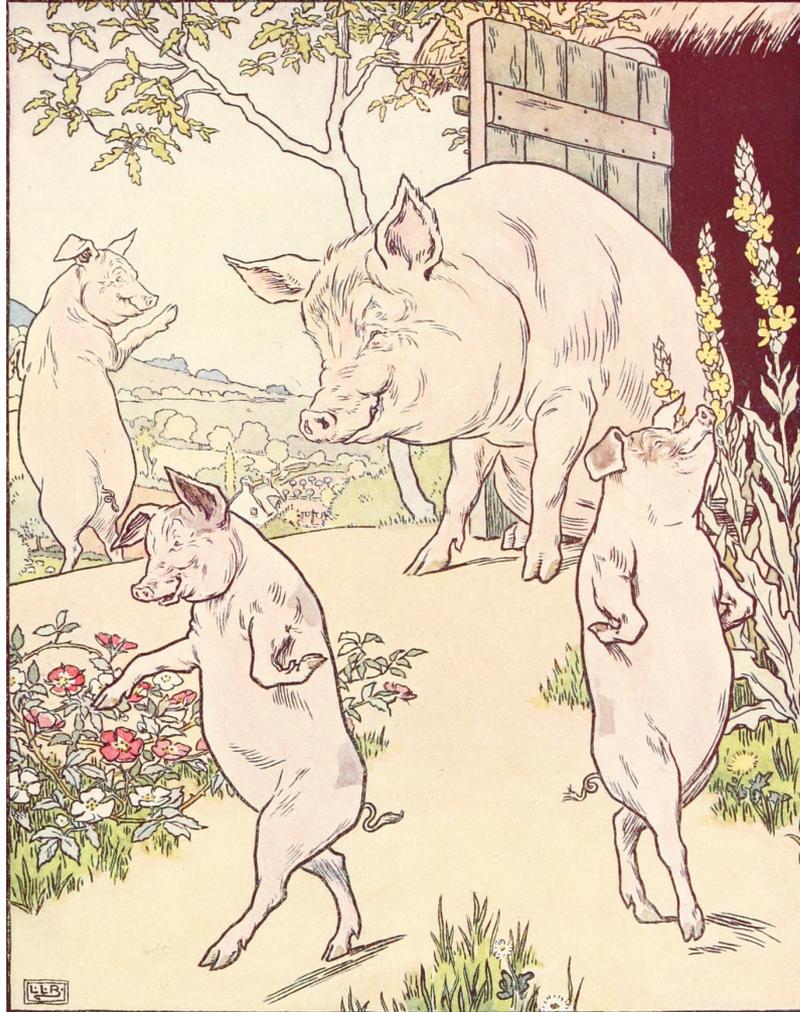
■ Verbal ■ Vocal ■ Visual





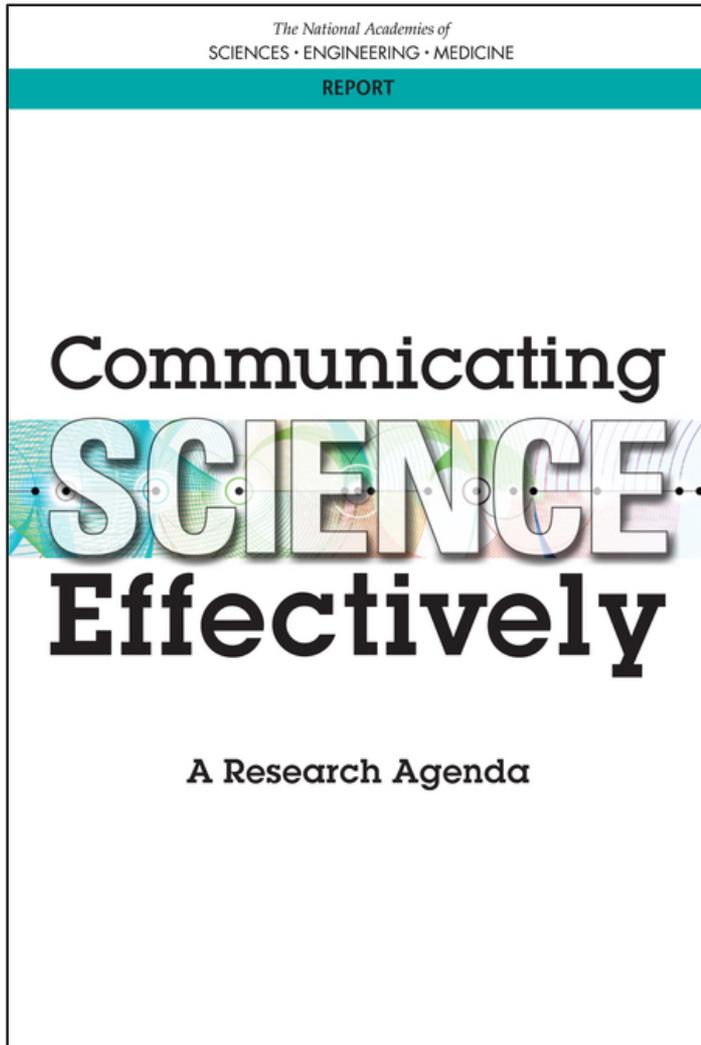
[https://commons.wikimedia.org/wiki/File%3ABdna\\_cropped.gif](https://commons.wikimedia.org/wiki/File%3ABdna_cropped.gif)

# If you must use bullets...



By Leonard Leslie Brooke (1862-1940) [Public domain] via Wikimedia Commons

# Science communication research resources



- NAS Sackler Colloquia: Science of Science Communication I (2012) and II (2013): <http://www.nasonline.org/programs/sackler-colloquia/>
- Journal of Science Communication: <http://jcom.sissa.it>
- Science Communication: <http://journals.sagepub.com/home/scx>

<https://www.nap.edu/catalog/23674/communicating-science-effectively-a-research-agenda>

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## Slide 20: Rule of three

<http://www.visualthinkingmagic.com/rule-of-three>

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<http://fairytalez.com/blog/the-power-of-three-why-fairy-tales-often-feature-a-triple/>